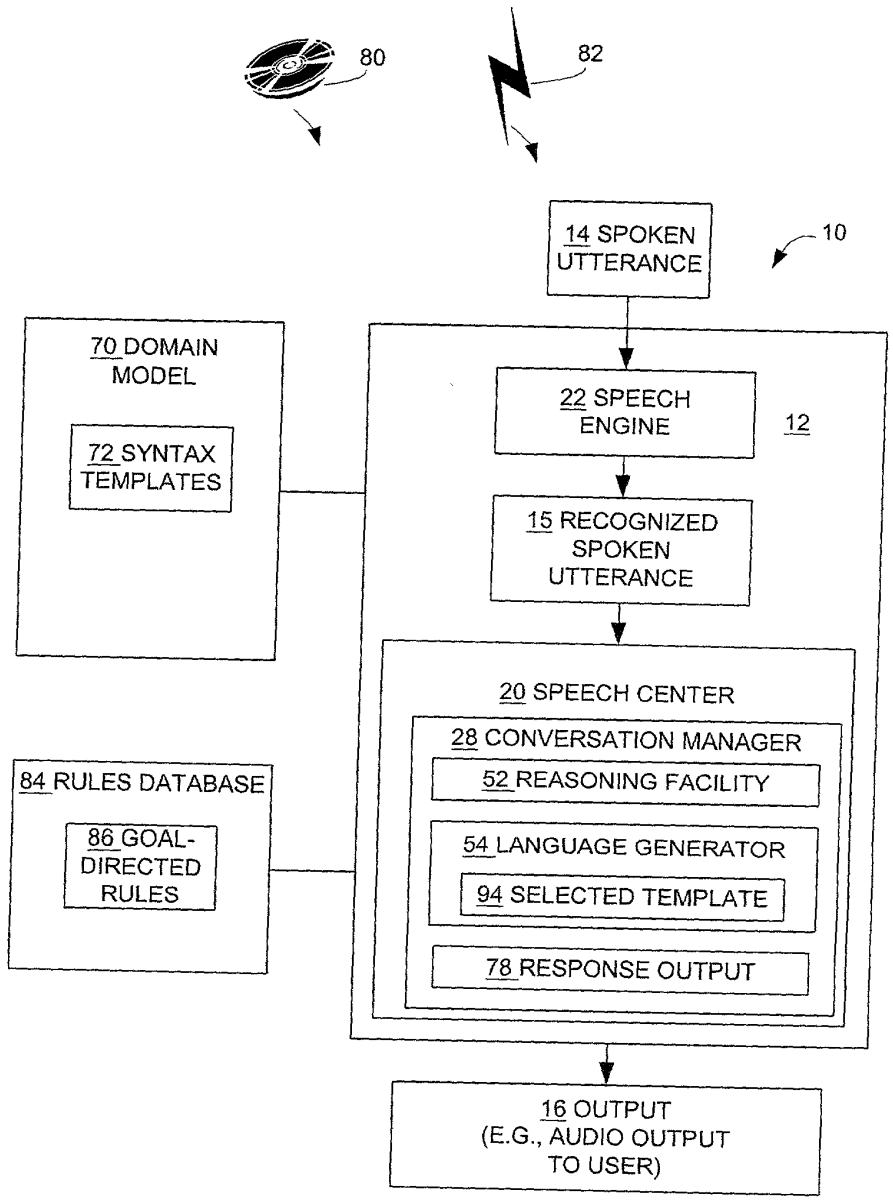

FIG. 1

Patent Pending

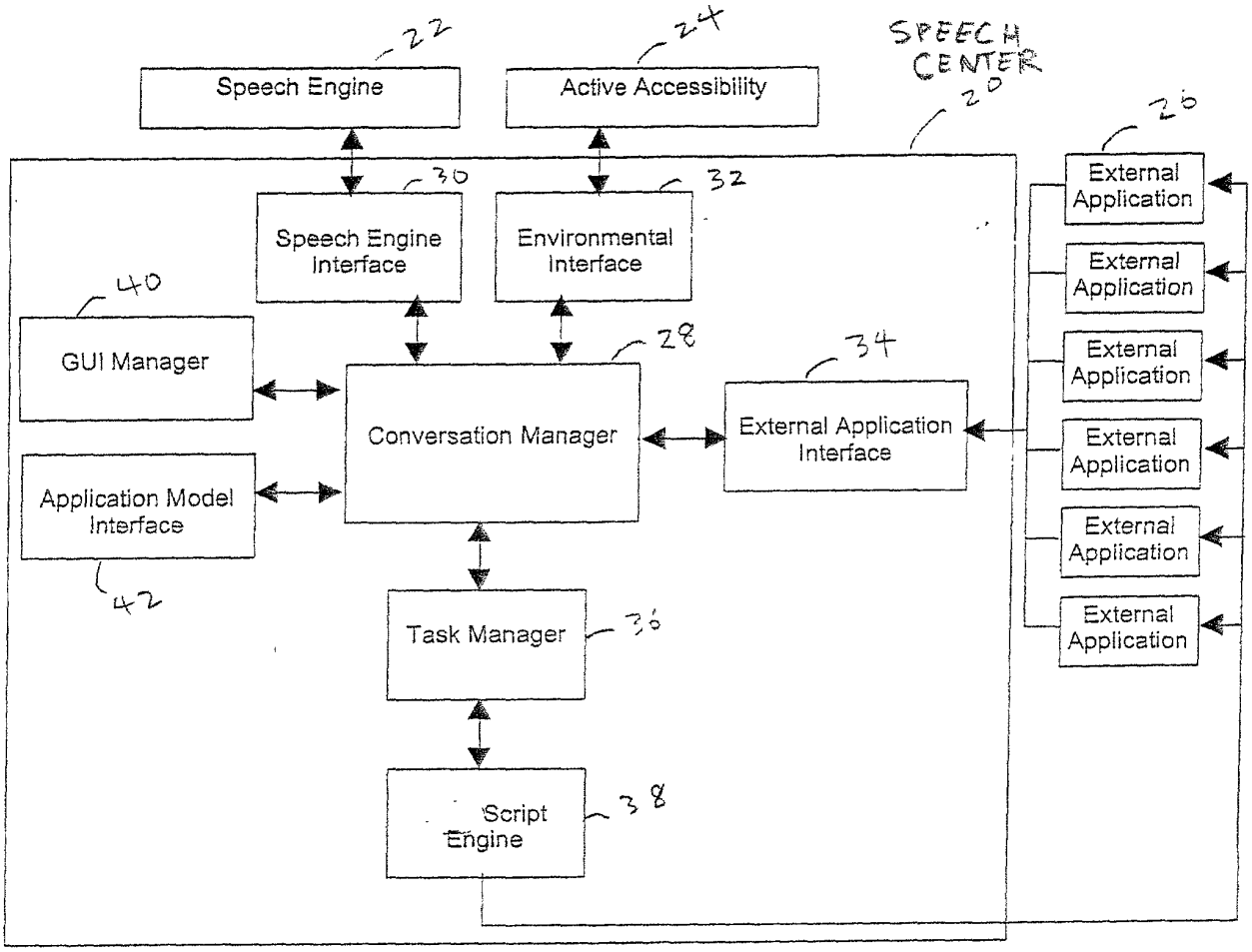
22
24
SPEECH CENTER
20
Speech Engine
Active Accessibility
26
External Application
External Application
External Application
External Application
External Application
External Application
30
32
Speech Engine Interface
Environmental Interface
40
GUI Manager
28
34
Conversation Manager
External Application Interface
Application Model Interface
42
Task Manager
36
Script Engine
38

Fig. 2

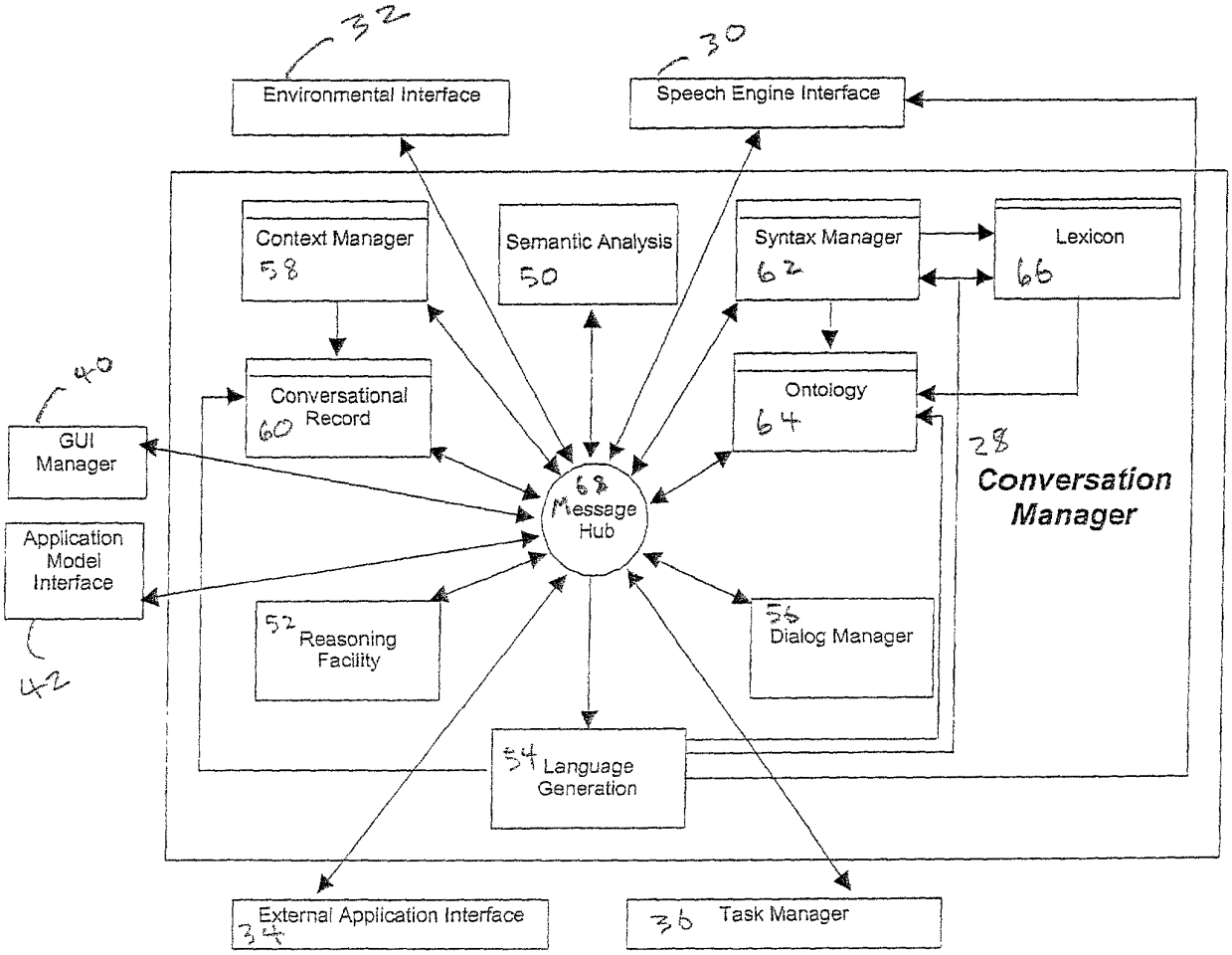
32
Environmental Interface
30
Speech Engine Interface
Context Manager
58
Semantic Analysis
50
Syntax Manager
62
Lexicon
66
40
GUI Manager
Conversational Record
60
Ontology
64
28
Conversation Manager
68
Message Hub
Application Model Interface
42
52
Reasoning Facility
56
Dialog Manager
54
Language Generation
External Application Interface
34
36
Task Manager

Fig. 3

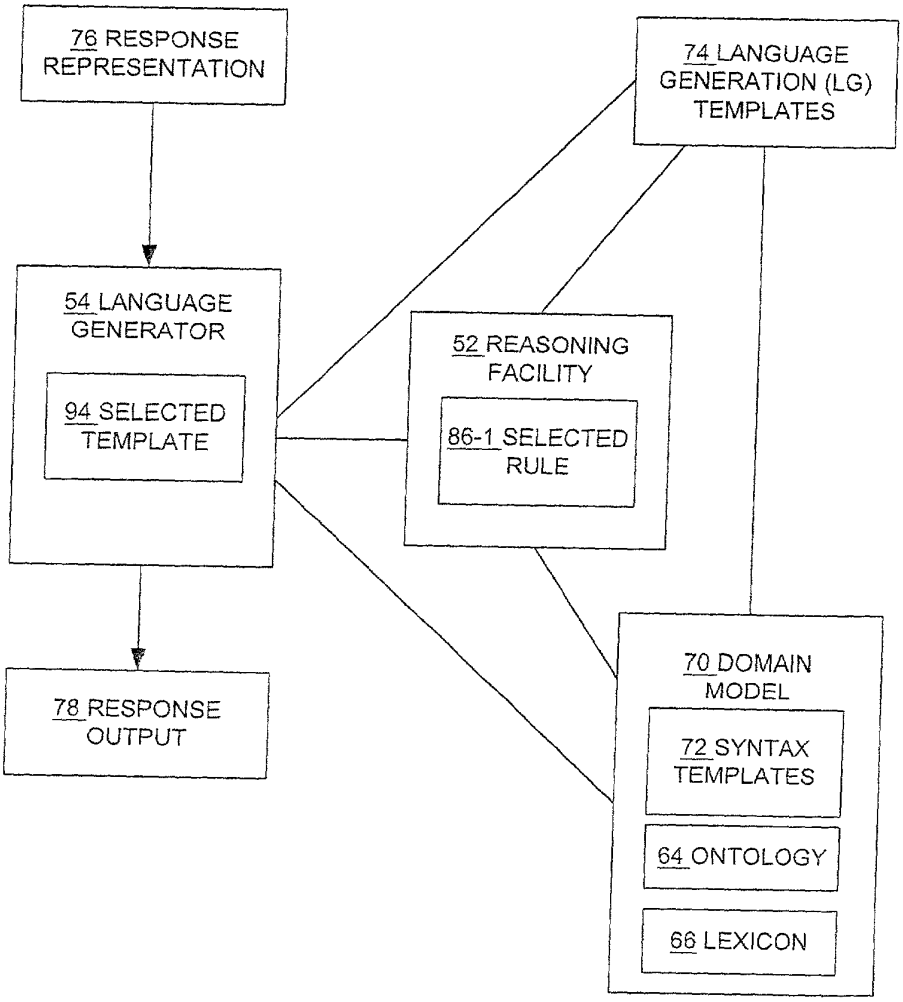
76 RESPONSE REPRESENTATION
74 LANGUAGE GENERATION (LG) TEMPLATES
54 LANGUAGE GENERATOR
94 SELECTED TEMPLATE
52 REASONING FACILITY
86-1 SELECTED RULE
78 RESPONSE OUTPUT
70 DOMAIN MODEL
72 SYNTAX TEMPLATES
64 ONTOLOGY
66 LEXICON

FIG. 4

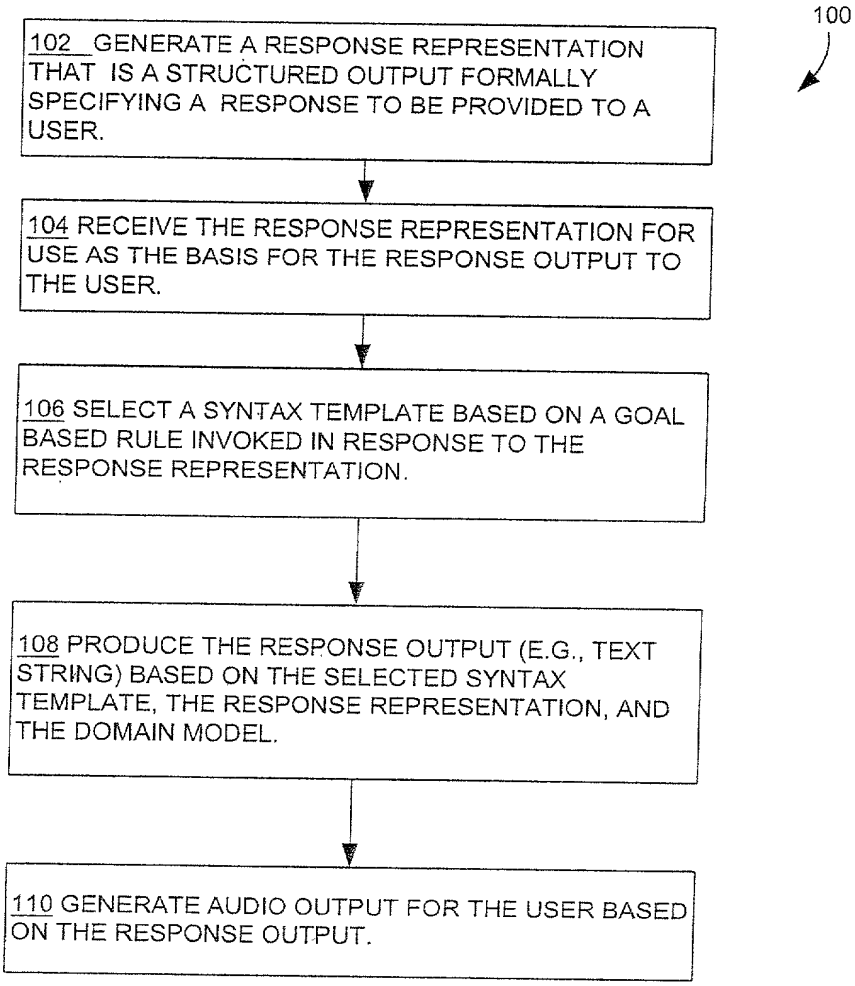
100
102 GENERATE A RESPONSE REPRESENTATION THAT IS A STRUCTURED OUTPUT FORMALLY SPECIFYING A RESPONSE TO BE PROVIDED TO A USER.
104 RECEIVE THE RESPONSE REPRESENTATION FOR USE AS THE BASIS FOR THE RESPONSE OUTPUT TO THE USER.
106 SELECT A SYNTAX TEMPLATE BASED ON A GOAL BASED RULE INVOKED IN RESPONSE TO THE RESPONSE REPRESENTATION.
108 PRODUCE THE RESPONSE OUTPUT (E.G., TEXT STRING) BASED ON THE SELECTED SYNTAX TEMPLATE, THE RESPONSE REPRESENTATION, AND THE DOMAIN MODEL.
110 GENERATE AUDIO OUTPUT FOR THE USER BASED ON THE RESPONSE OUTPUT.

FIG. 5